1691

THE ADVANTAGES,

Which may ariſe to the

PEOPLE of IRELAND

By raiſing of

FLAX and FLAX-SEED,

CONSIDERED.

Together with

INSTRUCTIONS for SOWING and SAVING the SEED, and Preparing the FLAX for the Market.

Drawn up and Publiſhed by the Direction

Dublin.—

OF THE

DUBLIN SOCIETY.

Hinc anni labor; hinc Patriam, parvoſque Nepotes
ſuſtinet. Virg.

DUBLIN:

Printed by A. RHAMES, Printer to the *Dublin* SOCIETY. MDCCXXXII.

BRITISH MUSEUM

THE ADVANTAGES, Which may ariſe to the PEOPLE of *IRELAND* By raiſing of FLAX and FLAX-SEED, Conſidered.

THE Linnen-Manufacture of *Ireland* was very inconſiderable in the Year 1700, but ſince that time it has gradually ſo improved and increaſed, that now it is become the principal Staple-Commodity of the Kingdom, and makes a third part in the Value of all our Exports.

It is by the help of this Commodity, that we have been able to maintain a Ballance in our Favour in our Trade with moſt other Countries, and to make ſuch large Remittances in Money conſtantly to *England*.

There is hardly to be found in Hiſtory, another Inſtance of a Nation, which has turn'd the Labour and Induſtry of its People almoſt at once into a new Channel, and brought a new Manufacture in ſo ſhort a time to ſo great and general a Perfection.

The Benefit ariſing from this Trade to thoſe Countries where it is carried on, appears from hence, that it gives full employment to the Inhabitants, increaſes their Number and Wealth, and raiſes the Value of their Lands. The Lands of *Ulſter*, though naturally very coarſe, and for the moſt part the worſt in the Kingdom, yet by the help of this Manufacture are come to be valued almoſt equal with the beſt, and the common People live better there than in other Parts; that Province hath by the Induſtry of its Inhabitants brought more Money into the Kingdom than any other, conſidering that moſt of all the Linnen exported, as well as what is conſum'd at home, is the Manufacture of the *North*.

It is computed that the Linnen made of the Produce of an Acre of Flax will yield at leaſt thirty Pounds, and give full Employment to ſix People for a Year; 'tis alſo computed that thirty thouſand Acres are made uſe of in this Kingdom in raiſing of Flax, and that about 180,000 Hands are employed in working it up; three or four thouſand Acres, over and above what we employ at preſent in raiſing of Flax, if duly managed, would produce as much good Seed and Flax as we import from foreign Countries, which amounts to the Value of 30 or 40,000 *l.* yearly. And if ten thouſand Acres more were employed in raiſing of Flax, and the Produce thereof manufactured into Linnen, we ſhould be able to export double the Quantity of Linnen we do at preſent, and give Employment to 60,000 idle Hands; and there is no doubt but we have three times that Number of People who live poor and idle for want of Work to be employed in. It is ſuch an Employment of our People, and Increaſe of our Linnen-Manufacture, and nothing elſe, that will enable us to anſwer the demands upon us from abroad, and encreaſe our Money at home, and therefore we ſhould endeavour by all proper means to ſpread that Manufacture into all Parts of the Kingdom. It has already made a conſiderable Progreſs in *Leinſter* and *Connaught*, and ſpreads farther every day, in Proportion, as more People fall into Spinning and Weaving; and all the *Southern* Parts of *Ireland*, which formerly neglected or ſlighted all Applications made to them for promoting the Linnen-Manufacture among them, now ſtrongly ſollicit the Linnen-Board for Flax-Seed, ſo that there is the greateſt Proſpect that in a few Years the Linnen-Manufacture will take place, and be eſtabliſhed in all the *Southern* Parts of the Kingdom, very much to their Benefit.

There is no reaſon to apprehend that we ſhall want a Market for all the Linnen we can make, ſince *England* alone takes off yearly from other Countries near the Value of two Millions *Sterl.* in Linnen. And 'tis to be hoped that *England* will give us further Encouragement to engage more univerſally in a Manufacture which does not hurt themſeves, and which may take us off from ſuch as they apprehend do interfere with theirs; it being found by Experience, that where the Linnen-Manufacture has prevail'd among us, the Woollen has proportionably declin'd. Add to this, that *Spain, Portugal*, the *Weſt*-Coaſts of *Africa*, and the *Weſt-Indies*, are all ſupplied with Linnen from foreign Countries.

Flax and Flax-Seed frequently fails in the *North* of *Ireland*, either from the badneſs of the Seaſons, the unfitneſs of the Soil, their uſing foreign Flax-Seed which is often decayed, or from the degeneracy of the Seed of their own Growth, occaſion'd chiefly by the Cuſtom which generally prevails among the People there, of pulling their Flax before the Seed is ripe, under pretence of having fine early Flax, by which means they either quite looſe the Seed, or it becomes ſo ſtarved and degenerate as to afford but a poor ſhort Flax: Theſe Misfortunes or Miſmanagements oblige them many Years to purchaſe Flax from foreign Countries at a great Price to ſupply their Spinners, and in ſuch Years, wherein their Flax fails, many of their Spinners and Weavers are unemployed, either for want of Materials or Money to purchaſe them; and every Year they are under a Neceſſity of procuring ſeveral thouſand Hogſheads of foreign Flax-ſeed, which ſeldom fails to degenerate in two or three Years time, which makes them depend on other Countries for the very Being and Support of a Manufacture, which is of ſuch Importance to us.

Now if the Inhabitants of *Leinſter*, *Munſter*, and *Connaught*, would fall into the Buſineſs of ſowing and ſaving their Seed and Flax in the proper manner, they might not only reap the Advantage of ſupplying the *Northern* Parts with what Flax and Seed they may want, but alſo lay the foundation of the Linnen Manufacture among themſelves.

Flax-Seed thrives beſt in a dry, warm, mellow freſh Soil, ſuch as the Sheep-Walks of *Leinſter*, *Munſter*, and *Connaught* for the moſt part conſiſt of; and in thoſe Provinces there are many hundred thouſand Acres of ſuch Land very fit for Flax: The Method made uſe of in other Countries, to preſerve their Flax and Seed from degenerating, is to ſow it in freſh Ground well prepared and proper for it, and not too thick: To let the Flax grow till the Seed be full ripe, and to keep it in Stack till towards the Spring: Not to ſow it two Years ſucceſſively in the ſame ſpot of Ground, but to ſhift it conſtantly into freſh Ground of the ſame kind, or of a different Nature.

'Tis the conſtant practice of good Farmers to change their Seed, and to ſow their Lands with Wheat and other Grain that grew in a different Country or Soil rather than what grew on their own, in order to keep it from degenerating; and we are inform'd that about *Riga* and *Conigsberg*, from whence a great part of *Europe* is ſupplied with Flax and Flax-Seed, and where the People are not obliged to any other Country for the change of their Seed, in order to preſerve it from degenerating, they ſow in the Low-lands the Seed which grew the Year before in the Uplands, and ſow in the Uplands, what grew on the Lowlands.

'Tis found by conſtant Experience that all Seeds and Grain improve by being ſown in a better and kindlier Soil than where they grew, and conſtantly degenerate when ſown in a worſe; our foreign Flax Seed never fails to degenerate when ſown in wet, clay Grounds, and ſuch as have been before ſown with other Grain, and abound with Graſs and Weeds; but the ſame Seeds, tho become degenerate, yet if ſown in a kindly warm Soil, will recover again, of this we have a remarkable Inſtance, in an Experiment which was made with a Barrel of the moſt degenerate Flax-Seed that could be got in the *North*, which being carried to *Munſter*, and ſown in ſome of the *Corcus* Lands in the County of *Limerick*, produced very good Flax there, and the Seed thereof ſent back to the *North*, produced as good Flax as any of the *Dutch* Seed did.

Since then the way to preſerve Flax and Flax-Seed from degenerating, is to ſhift the Seed yearly into freſh kindly Soils, and ſince the Farmers in the *North*, and the Cottiers every where, are confined to very ſmall Parcels of Land, and conſequently cannot put this Method in Practice, and as great Quantities of Seed and Flax are annually imported to ſupply the Demands of the *North* and other Parts of the Kingdom, it would be very much to the Advantage of the Nation, if the Peple of the *Southern* Parts, who have great Quantities, and Variety of Land very fit for Flax, would raiſe Seed and Flax for the Supply of the reſt: In this all Parts of the Kingdom would find their Account, the *Northern* Parts by being ſure of a conſtant Supply of good freſh clean Seed from the *South*, and the *Southern* Parts by having a good Market for their Seed and Flax in the *North*, and the Nation in general by ſaving great ſums of Money expended yearly in the purchaſe of foreign Seed and Flax.

The Profit which the People of the *Southern* Parts may expect from ſowing Flax will appear from hence, that the Charge of preparing Ground for Flax is leſs than for Corn, for if it be a mellow, rich, dry, ley Soil, one ploughing with good harrowing is ſufficient; and an Acre of good Flax rightly managed, will, as it ſtands in the Field, ſell from 7 to 11 Pound; and if it be not ſown too thick, and be left to grow till the Seed be full ripe, and kept in Stack till Spring, an Acre will produce from 15 to 22 Buſhels of Seed, which if ſold at the rate that *Dutch* Seed has been ſold for of late Years, will yield from 6 *l.* to 9 *l.* for the Seed only; and ſurely if a much leſs Profit aroſe from the Seed, yet what would ariſe from the Flax alſo, would make it worth the Farmer's while to turn his Induſtry that way.

Now 'tis computed that an Acre of indifferent good Flax will produce 30 Stone of Flax at the leaſt, of 14 Pound to the Stone, which made fit for heckling, will at the rate of five Shillings the Stone, yield 7 *l.* 10 *s.* and 'tis known that ſome Lands in *Leinſter* have produced 60 Stone of Flax to an Acre; ſo that any one who will make uſe of good Ground, and order his Seed and Flax according to the Directions herein after mentioned, may by barely ſelling his Seed and Flax, without entering farther into the Manufacture, or being at much Expence, very well expect to get ten Pound an Acre clear Profit, which is more than can be made any other way.

But it may be objected, that it cannot be expected, that the People of the *Southern* Parts will apply themſelves to the raiſing and ſaving of Seed and Flax, becauſe they are not ſkilled in the right Manner of doing it, or if they were, yet as the People among them are not able to work it up, there will be no Demand for their Seed or Flax, and conſequently it will lie upon their Hands.

In Anſwer to this, we are to obſerve, 1ſt. That little or no Art or Skill is required to prepare the Land, ſow and ſave the

Seed and Flax, ſo as to be fit for Market; the Directions herein after mentioned for that Purpoſe, which any one may put in Execution, will be ſufficient to inſtruct them; nothing more being expected from them at preſent but to furniſh the rough Materials to thoſe in the *North* and other Parts, who want them for their Manufactures: 'Tis owned indeed that heckling and ſpinning of Flax, weaving of Yarn, and bleaching of Linnen, are particular Arts, and require Time, Skill and Experience to become Maſters of them, and cannot be brought at once into general Uſe, where they were not known before; but it cannot be doubted, when the Material comes to be in plenty in the *Southern* Parts, but that the People will by degrees fall into the Manufacture of it themſelves.

2dly. Tho there may not be any Demand at preſent in the *Southern* Parts for Flax and Flax-Seed, yet the Demands are very great in other Parts of the Kingdom; the Linnen Board and private Merchants import yearly many Thouſand Hogſheads of Flax-Seed, which commonly ſtand them in about 50 Shillings or 3 Pound a Hogſhead or 7 Buſhels, and this Year near 4 Pound, and when this is ſold in Pecks and ſmall Parcels to the poor Country People, they pay near the rate of five Pound a Hogſhead, and as the Linnen Manufacture is every day ſpreading farther not only in the *North*, but in all other Parts of the Kingdom, the Demand for Seed and Flax will proportionably increaſe. Great Quantities of Flax are alſo yearly imported from foreign Countries to ſupply our Wants; from all which 'tis evident that we ſhall not want a Market at home for any Quantity of Seed and Flax which may be raiſed in the *Southern* Parts.

In order to encourage the *Southern* Parts of the Kingdom to raiſe Seed and Flax for the *Northern* and other Parts, the Truſtees of the Linnen Manufacture have publiſhed the following Advertiſement.

WHEREAS the raiſing of large Quantities of Flax-Seed in this Kingdom, will greatly contribute to the extending and carrying on the Linnen Manufacture thereof, the Truſtees for the Hempen and Flaxen Manufactures, for the more Effectual anſwering of theſe Ends, are ready to receive Propoſals in order contract for Three Years, from *December* 1732, with any Perſon for a Quantity of Flax-Seed of the Growth of this Kingdom, raiſed by ſuch Contractor in good Ground, and ſafely kept in Stack to the firſt of *December* in each Year, to be deliver'd at ſuch Time and in ſuch Places as will be agreed on, either in Hogſheads or Parcels, or in Sacks containing four Buſhels; and for the farther Encouragement of ſuch Contractors, and that the Flax-Seed contracted for, may be only of the beſt Kind, it is propos'd to furniſh them with a Quantity of Foreign Flax-Seed, at the Expence of the Board, for the firſt Year, not leſs than twenty Buſhels, nor more than eighty Buſhels to any One Perſon. The

Propoſals to be ſent in Writing to the Linnen-Office in *Dublin*, before the firſt Day of *May* 1732. *Dublin*-Caſtle, the 22d of *January* 1731.

Signed by Order,
Chriſtopher Uſher.

This is great Encouragement to any Undertaker, the Truſtees will furniſh him *gratis* with as much foreign Seed, as he can have occaſion for to begin with, and afterwards will take off his Hands all the Seed he ſhall raiſe from thence in the proper Manner, ſo that the Farmer may be ſure of a good Price for his Seed by ſelling it, either to the Truſtees, or others who may want it, and if he manages well, he may make Six Pound an Acre clear by his Seed, and near as much more by his Flax.

But it may be ſaid if Flax be let to ſtand till the Seed be full ripe, it will be coarſe, and conſequently of leſs Value.

In Anſwer to this 'tis to be obſerved, that if Flax-Seed be ſown pretty thick on rich mellow light Soiles, ſuch as our Sheep-Lands are, the Flax will ſtill be fine, tho it ſhou'd be ſuffered to ſtand till the Seed be ripe, but if it be ſown thin, 'tis allowed that the Flax will then be the coarſer, but then it will be more in Quantity, ſtronger, and of more Service; and the longer it is kept the finer it will grow, according to the old Saying, *Wool may be kept to Dirt and Flax to Silk*, and accordingly Flax has been kept in *Saxony* for 20 Years, and thereby became as fine as the Hair of one's Head. All the Flax imported into this Kingdom is of the courſe ſort, all our Linnen under two Shillings a Yard, or from a 900 to a 1300 Cloth, may be made of this kind, and moſt of our Linnen conſum'd at home, or exported abroad, is of that ſort. Since then the general Demand of moſt Countries is for the coarſer ſort of Linnen, we ought to apply our ſelves chiefly to the making of that ſort, which is moſt in Demand, and never fails to meet with a Market; when on the contrary fine Linnens may lye upon our Hands.

It may ſtill be objected, that the *Southern* People reap a conſiderable Profit at preſent by keeping their Lands under Stock, and it being commonly believed that ploughing of Land is prejudicial to it, they will be the leſs inclin'd to employ any part of their Sheep-Lands in the raiſing of Flax and Flax-Seed.

To this I anſwer, that if the Seed and Flax of an Acre will produce Ten Pounds clear Profit, as is above mention'd, the Undertaker will get 10 or 20 times more in a Year thereby, than he can by Graſing, and the Nation get 30 times more, if the Flax be wrought up into Linnen. And provided you take but one Crop of Flax, and two of Corn at moſt off it, the ploughing the Land will, beſides the preſent Profit, be ſo far from being a Prejudice to the Land, that it will greatly improve it; for 'tis obſerved that Sheep-Walks in time grow moſſy, which hinders the growth of the Graſs, and ſubjects the Sheep to the Rot, and therefore 'tis good Husbandry to plow up Sheep-Lands once in twelve Years, which will not fail to deſtroy the Moſs, and mend the Graſs; and if at the laſt ploughing you ſow *Clover*, *Reygraſs*, or other Graſs Seeds on ſuch Lands, the Herbage will be of four times more Value than it was before, and continue ſo for ſeveral Years; from whence 'tis evident that the ſowing of Flax-Seed, will produce a great Profit for the preſent, and may be the occaſion of raiſing a great deal of Corn, and improving the Paſture and Herbage of our Lands both in the Goodneſs and Quantity of it.

The following Hints may be of uſe for the farther Advancement of the Linnen Manufacture of this Kingdom.

1ſt. It is recommended to thoſe in the *North*, who commonly pull their Flax before the Seed is ripe, in order to have fine early Flax, to let the fourth part of their Flax grow till the Seed be ripe, which part ſhould for that reaſon be ſown ſo much the thinner, by which means they will have fine Flax for their preſent Occaſions, and if the Seed be kept houſed or in Stack, and the Soil be good, they will have tolerable good freſh Seed in the Spring, and not be ſo ſubject, as now they are, either to get no Seed at all, or to pay exceſſive Prices for it.

2d. The *Northern* Parts having gone a great way into the making of fine Linnen, and being much employed therein, it is recommended to the other Parts of the Kingdom, where it is intended to ſet forward the Linnen Manufacture, to apply themſelves chiefly to the making of the coarſer Linnens, which always find a Market, and require leſs Skill and Expence in the Management, and are as profitable to the Manufacturer as the fine, and by employing more Hands may be more profitable to the Publick.

3d. For the convenient ſupplying the *Northern* and other Parts with Seed and Flax, with as little Expence as poſſible in the Carriage, it is recommended to encourage the raiſing of Flax and Seed in thoſe Parts of *Leinſter* which border on the *North*, ſuch as *Lowth*, *Meath*, &c. where the Land, as it is very good for Sheep, is alſo very good for Flax, and in all the other Parts of the Kingdom, which are near the Sea, or ſome navigable Rivers, by which means their Flax and Seed may be carried to *Dublin*, *Newry*, *Belfaſt*, and all other Places with little Expence.

4th, It would greatly encourage the People of the *Southern* Parts to raiſe Flax and Flax-ſeed, and be a great Eaſe and Benefit to all thoſe who would be willing to ſet forward the Linnen Manufacture there, if Markets were ſet up, and conſtantly kept in ſeveral Cities and Towns in thoſe Parts, for ſelling and buying Flax, Flax-ſeed, and Yarn; where the Farmer may be ſure of ſelling his Commodity, and the Spinner and Weaver of buying up Materials for keeping them in Work.

5th. It is recommended, that in all ſuch Places, where Markets for Flax and Yarn, *&c.* ſhall be Eſtabliſhed, Flax-Dreſſers be alſo ſettled for preparing the Flax for the Spinners, and that Spinners, Weavers and Bleachers be encouraged to ſettle there alſo.

6th. But above all others, Spinners ought to be firſt and chiefly encouraged, without them the Manufacture cannot go on any where, and with them it will proſper with eaſe every where. And therefore it is manifeſtly the Intereſt of every Gentleman of Eſtate in this Kingdom to furniſh all the poor People living on their Eſtates, with Spinning Wheels and Flax; and tho this may be ſome ſmall Expence to them at firſt, yet the Poor in a little Time will be able by their Work not only to repay their kind Landlords all the Expence they ſhall be at, in the beginning on their Account, but go on afterwards in their Work upon their own Stock, and grow rich themſelves, and greatly improve the Eſtates they live on.

7th. It would be very much for the Improvement of the Linnen Manufacture, if one Set of People or Country was wholly employed in raiſing and furniſhing the Seed and unwrought Flax, another in heckling and ſpinning, and others in weaving and bleaching; for by this means each part of the Manufacture would be managed with more Skill and Dexterity, and with leſs Expence, as is found by Experience in all other Trades, where one ſort of Tradeſman is employed in one Branch of the Buſineſs only, and no other, and conſequently muſt become better skilled in that part, and can afford his Work the cheaper: Whereas when the ſame Perſon is to go through every part of the Manufacture, he will not be good at any one of them; and will be taken off from ſuch, as otherwiſe he could be beſt employed in. This farther Advantage would ariſe from making every part of the Linnen Manufacture a diſtinct Trade, that not only the Seed, Flax, and Yarn would be had cheaper, in greater Plenty, and in better order, but the Price of the Materials and Workmanſhip would be more ſettled and conſtant, which would be a great Advantage to all concerned in this Trade, who are often ſtopt and embaraſſed in their Buſineſs by the ſudden riſing and falling of thoſe Commodities.

In order that Gentlemen and Farmers of the *Southern* Parts, who are willing to apply themſelves to the propagating of Flax and Flax-ſeed, may be fully inſtructed in the beſt manner of doing it, the following plain Inſtructions for Raiſing and ſaving the Seed and Flax, are herein ſet forth, taken from *Slator*, *Hall*, and other experienced Perſons, which will ſufficiently inform them of what ought to be done from the ploughing the Ground to the preparing the Flax for the Market, the raiſing the Material being the Point that ought to be moſt encouraged in thoſe Countries at preſent, without entring farther into the Manufacture.

IN-

INSTRUCTIONS

FOR

RAISING and SAVING of FLAX and FLAX-SEED, and PREPARING the FLAX for the Market.

SECT. I.

Of Land fit for Flax.

LAND moſt natural for Flax, and where it thrives beſt, is a rich, mellow, dry, and warm ley Ground, ſuch as the Sheep-Walks of *Leinſter*, *Munſter*, and *Connaught* generally are.

Lands good for *Barley* are alſo good for Flax, and ſuch as have been lately brought in by Potatoes produce good Flax, provided they are well clear'd of the Roots of Patatoes and Graſs.

If heathy Grounds be burn-beaten, that is, the upper Sod ploughed up, and burnt, and the Aſhes of the Sods and Heath ſpread upon the Soil, they produce good Flax.

Grounds which are wet, cold, ſtiff, clayey and coarſe are very unfit for Flax, and ſo are ſuch as are hungry, barren and boggy. But loamy Grounds, in which Sand predominates over the Clay, are good for Flax, provided they are not too wet.

Flax does not ſtrike its Roots above an Inch or two deep; and therefore does not require a deep or a fat Soil; it requires only a fine mellow Mould, two Inches deep, free from Weeds, nothing being ſo injurious to Flax as Weeds, which ſtarve and ſuffocate it; and for this reaſon Flax thrives beſt in untry'd freſh ley Grounds, which if mellow, both afford a ſufficient depth of Mould by one ploughing, and good harrowing, and are free'ſt of all other Lands from Weeds.

SECT. II.

Of Ploughing and Harrowing the Ground for Flax.

THERE are three Things, which ought principally to be obſerved in Agriculture or Tillage. 1ſt. That the Grain be ſuited to the Nature of the Soil. 2d. That the Soil be ſufficiently broken and made fine by labouring, and by being expoſed to the Sun and Froſts. 3d. That the Soil be well cleared, from time to time, of the Roots of Weeds and Graſs; If theſe Maxims be carefully obſerved, very little Manure of any kind will be wanting.

If the Soil be rich, mellow and dry, ſuch as our Sheep-lands commonly are, (which are therefore moſt recommended) then one ploughing will be ſufficient, which is to be done in *February*, ploughing the Ground three or four Inches deep, and laying the Sod with the Graſs-ſide down ſmooth and even, and in the latter end of *March* or beginning of *April*, when the Froſts are over, you are to harrow it, not croſs-wiſe, but along the Ridges, and take care not to turn the green Sod in harrowing, for that would occaſion a great deal of Trouble before you could break the Land and Sods fine enough, and would fill your Ground with Weeds and Graſs; for that reaſon, firſt make uſe of middle-ſized Harrows, which will not turn the Sod, and yet will tear the Mould off, and afterwards make uſe of finer Harrows, and work the Ground therewith, til you have made the Mould very fine, and about two Inches deep; breaking all the Clods and Lumps, and removing all Stones and Rubbiſh from off the Ground; and when your Ground is thus prepared, then ſow your Seed.

If your Soil be a ſtrong Loam, or more inclined to Clay than Sand, and wants the Winter's Froſts to break it fine, then you are to give it two Ploughings, the firſt in *October*, and the next in *March*, juſt before you ſow your Seed, taking care to harrow it well before and after the laſt Ploughing.

But if your Soil be coarſe or a ſtiff Clay, or a ſtubborn Gravel, (which are not recommended for Flax, and ought not to be uſed but when you have no other) you muſt then of Neceſſity give it three Ploughings, the firſt for Summer-Fallow, and proceed after as above mentioned, croſs-ploughing it the ſecond time, and harrowing the Ground well before and after the ſecond and third Ploughings; and in Proportion as your Land is ſtiff, you are to plough it the deeper, to prevent the Water from lying too near the Roots of the Flax; nothing being ſo injurious to Flax as too much Water or a cold Soil.

In dry Soils the Ridges cannot be made too wide or too flat or the Furrows too ſhallow, there being no danger of Water, lying at the Roots in a light Soile; but in clayey ſtiff Soils the Ridges ſhould be made higher, but flat, 8 or 10 Feet broad at moſt, and the Furrows deeper, in proportion to the ſtifneſs of the Soil, in order to carry off the Water the better, and for this purpoſe proper Drains ought to be made to convey the Water from the Furrows.

But with regard to the plowing of Ley-Ground for Flax, whether the ſame be light and ſandy, loamy, or clay, it cannot be doubted, if the ſame Tillage be given to it, as is requir'd for Corn, that is, a Summer-Fallow, and two or three Ploughings and Harrowings, but that ſuch Land, if it be kindly, would produce an extraordinary Crop of Flax and Seed, and much better than it can do by one or two Ploughings only; and at the ſame time make the Ground fit for giving 2 or 3 very good Crops of Corn, which would make ample Amends for any extraordinary Tillage you give the Land: For as Flax deſtroys all Weeds, and does not enter but litrle above an Inch into the Ground, you may depend upon having on the ſame Spot, where you had your Flax, a good Crop of any other ſort of Grain, provided ſuch Grain ſtrikes its Roots deeper than Flax does; it being the right Judgment in ſowing, that where you ſow Seeds of ſhallow Roots one Year, to ſow the next Year Seeds which ſhoot their Roots deeper, for by this means each ſort will meet with ſufficient Nouriſhment in different, freſh, and unexhauſted parts of the Soil, and not deprive one another of their due Food.

SECT. III.

Of the Choice of the Seed, the Quantity, and manner of ſowing it.

GOOD Flax-Seed is generally of a browniſh yellow Colour, the Husk well filled and plump, with a little turn up at the end, and the Kernel white and hard; but decayed Seed is either of a paler yellow, or perfect black, broader and thinner by far in the Kernel than the good Seed.

The *Dutch* ſave the beſt of their Seed for their own uſe, and what they ſell to Foreigners they frequently mix with decayed Seed, nay ſometimes the whole Parcel brought to us from thence has been ſo ſpoiled and heated, either before or after it has been put on Ship board, that not a Grain of it has been found to grow, and the Seed we have from the *Baltick* is generally mixed with the Seed of Weeds: Thus are we abuſed and cheated in foreign Flax-Seed.

If the People of the Southern parts of this Kingdom wou'd ſow their Seed in good Land, and ſave the Seed thereof in the proper manner, it might always be had in good Condition, and wou'd equall if not excell any we import from abroad.

Three Buſhels and a half of Seed are ſufficient for a Plantation Acre of coarſe Land, and four Buſhels and a half are enough for an Acre of the Richeſt Land.

Flax-Seed ſowed thin produces the beſt Seed and in greateſt quantity, and when ſowed thick yields finer Flax, but leſs and worſe Seed.

If Flax-Seed be ſown very thick, ſcarce one Grain in Ten will grow; but if ſowed thin, hardly a Grain of good Seed will fail, and therefore ſome think that three Buſhels are ſufficient for an Acre.

There can be nothing more pernicious to the raiſing of Flax, than ſowing it too thick, for by ſo doing the Flax can never be Ripe, the Harl has no ſubſtance, the Seed produced is bad, both in quantity and quality, and the Flax will certainly lodge, before it is Ripe or fit for Uſe.

Sowing of Flax-Seed in an even and equall manner is of great Uſe, and may be ſoon learn't, but 'tis practice that will make one expert in it.

The Time for Sowing of Flax-Seed is from the latter end of *March* to the middle of *April*, the earlyer the better, and for this reaſon a good Husbandman ought to have his Ground ready for Sowing by the 20th of *March*, that he may take hold of the firſt opportunity, which offers after, for Sowing his Seed; and take care not to Sow it two Years ſucceſſively in the ſame ſpot of Ground, but to ſhift it into freſh Land, to prevent its degenerating.

When you have ſown your Seed, you muſt get a pretty large Thorn-Buſh, and fix thereon a weight of Timber or Stone, ſufficient to make the Thorns to enter in ſome meaſure your Ground. This Buſh muſt be dragged by an Horſe over your new ſowed Ground, and will cover the Flax-Seed much better than any Harrow can do: but becauſe the Buſh may be apt to be choaked by the Rubbiſh, there ought to be a ſmall cord ſo fixed to the Buſh, as that a Boy by holding that cord in his Hand, may by giving it a twitch, raiſe the Buſh ſomewhat off the Land, which will make the Dirt and Rubbiſh to fall down from the Buſh, all which muſt be removed from off the Ridges, that the Flax may ſpring equally.

After the Seed is ſown and cover'd, it is of uſe to roll the Ground well with a Roller about 5 Foot long, and 15 Inches Diameter, made round, which is to be drawn in a Frame by a Horſe, this rolling ought to be in dry Weather, for if it be wet, both Seed and Soil will cling to the Roller, and ſpoil all: The end of rolling is both to break the Mould finer and to make the

Soil lye cloſe to the Seed, ſo as neither the drying Winds may hurt the Seed, nor Birds gather it, and the Trouble is not great, for one Horſe will role ſix Acres in a Day.

When the Flax is grown about ſix leaves high above the Ground, the *Dutch* roll it with a roller made eight ſquare, and ſix Foot long; this roller is drawn by a Horſe ſhod with broad Leathern Shoes to prevent his cutting the Flax, as he Threads thereon, or his ſinking too far into the Soil.

It wou'd be a great benefit to the Flax, if your Flax-land lay ſo, that Water may be conveyed to it at pleaſure, in very dry Seaſons; which often happen in the Spring, and beginning of Summer, the Watering of it at ſuch a time, would make the Flax thrive exceedingly, and bring the greater Profit, in regard that Flax fails in ſuch Seaſons in moſt places.

SECT. IV.

Of Weeding Flax.

FLAX muſt be carefully Wed, when it is about four Inches high; the Weeds muſt be cut with a ſharp Knife, or Iron in the form of a Chiſſel, as near the Root as you can, but the Roots muſt not be pulled up, becauſe that looſens and abuſes the Flax.

The Weeders cannot hurt the Flax by ſitting or lying on it, while they are Weeding; but they may do it much prejudice by ſtanding on it, eſpeceally if they have Shoes or Pumps on, the Heels of them being apt to cut the Flax.

SECT. V.

Of Pulling and Rippling of Flax, and ſaving the Flax-Seed.

FLAX is known to be ripe or fit for pulling, when the Bowles or Pods, which contain the Seed, grow brown, and the Leaves towards the Root fall from the Stalk, and then you ought to pull your Flax; and if you obſerve ſome part of the Flax much finer than the reſt, pull the Fine by it ſelf, and the Coarſe by it ſelf, and manage them ſeparately in the watering and dreſſing of the Flax. For the Coarſer Flax is much ſooner rated or water'd than the fine, and ſhou'd they be promiſcuouſly pull'd and water'd together, the coarſe Flax wou'd be ſpoil'd before the fine cou'd be ſufficiently water'd.

When you have pull'd as much Flax as you can hold in your Hand, lay that down on the Ground, keeping the Roots together, and pull another handfull, which lay by the ſide of the firſt, or a croſs it, and ſo proceed with the reſt, there let them lie for ſix or ſeven Days to Weather, then take up as many of theſe handfulls as will make a Sheaf of the thickneſs of ones Thigh, and placing that ſide of the handfulls which lay next the Ground, on the outſide of the Sheaf, bind them together in the middle, or near the upper end, that when theſe Sheaves are to be placed on their butts, thoſe butts may be ſpread out, and the middle of the Sheaf left as hallow as a Bird-cage, that the Wind may freely paſs thorough them; theſe Sheaves are to be left thus ſtanding in the Field for eight or ten Days, two and two leaning on each other in long rows, or eight or ten of them placed on the Butts in a Circular form, leaning on each other untill they are ſo dry that there is no fear of heating in the Stack.

When the Sheaves are perfectly dry, then you are to Houſe them, or Stack them in ſuch a manner as may beſt preſerve them from Rain or other Water, untill the Spring, when you have occaſion to ſow the Seed.

In making your Stacks, take care that there be a foundation made with Stones, ſufficiently raiſed from the Earth, that no under Water or damps may prejudice the Flax; and if your ground and other circumſtances incline you to make it into large Stacks, rather make it up in the form of a Rick, then large round Stacks, both for keeping it better aired, and that when you have occaſion to take it down to Ripple, you may be at libery to take down but part of it, which you may eaſily do when it is in a Rick: whereas when 'tis in a round Stack, you muſt take down all at once, and thereby be more ſubject to be injured by accidental Showers, or wet Weather: But if you make it into round Stacks of a moderate ſize, you will avoid all theſe inconveniencies; but by all means take care to have your Stacks well Thatch'd, with a ſufficient Water-caſt to throw off the rain, and in making your Stacks place your Sheaves in ſuch a manner, that the Seed pods may be kept dry and well aired.

The Flax which the *Dutch*, *Flemmings*, and People of other Countries intend for Seed, they never Ripple the ſame Seaſon they pull it, but keep the Flax and Seed together, till the enſuing Spring, and in the mean time Houſe or Stack it. There is no way ſo ſure, ſafe and natural to preſerve Seeds of all kinds dry, pure, and free from heating, as to keep them on the Stalks, and in the Pods wherein they grow, which keep them cool and free from moiſture; whereas when they are ſeparated from their Stalks and Pods, and heaped together, they are very apt to heat and ſweat, and none more than Flax-ſeed, which is very Oily; and nothing but frequent turning and airing on dry Floors, will keep them from heating, growing Muſty, and from loſing their Colour.

In order to deſtroy Rats and Mice, which are fond of Flax-ſeed, it is requiſite, if you are troubled with ſuch Vermin, in forming the Stack, at every two Foot diſtance to place Reeds fill'd with Poiſon; for this purpoſe, with an equall quantity of white and yellow Arſenick, ground by an Apothecary to a palpable powder, mix a ſufficient quantity of Malt-flower, wet the whole with Milk, and a little Canary-Wine, with a few drops of the Oyle of Anniſeed, when the whole is in a Paſte, fill the hollows of the Water-reed cut about a Span long with this Paſte, and ſtop up each end of the Reed, if there be occaſion, with ſmall wooden peggs, ſo as the Poiſon may not drop out; the ſmell of the Canary and Oyle will draw the Vermin, and tempt them to knaw the Reeds, which they cannot do without eating ſome of the Poiſon, which will deſtroy them, and make that part of the Vermin which are not Poiſon'd, to deſert the Stack, and never more come near it.

Some build their Stacks on Poſts or round Pillars with large broad Stones on the top of the Poſts, by which method they keep their Flax cool and airy, and prevent any Vermin from getting into the Stacks.

Others who have the Conveniency of fine dry Sand, have made uſe of it with ſucceſs in baniſhing Vermin from their Stacks, by ſtrewing and ſprinkling the Sand on the Bowles, and Sheaves as they are placed in the Stack, for when the Vermin come to eat the Seed, they will be ſo diſturbed by the Sand falling into their Eyes and Mouths that they will quit it.

In the middle or latter end of *March*, take down your Stack, and carry it into your Barn, and ſever the Bowles or Seed-pods from the Stalks, this is better done by Rippling than by Thraſhing, becauſe the Rippling Combs do not break or diſturb the Harl or Skin of the Flax as Thraſhing does, and they ſever the Leaves and Branches, as well as the Bowles from the Flax, which Thraſhing will not do, and Rippled Flax lies better in Water, ſpreads eaſily on Graſs, and is eaſier Swingled

The *Dutch* Rippling-Bench or Board, is made of a Board 8 Foot long, 15 Inches broad and 2 Inches thick, and rounded at the Top for one to ſit a ſtride upon, it is fixed on Feet with braces about two Foot and a half high; in the middle of the Board is placed the Rippling-Comb, the Teeth whereof ought to be of Iron, and from 12 to 15 Inches long, and the edges of the Teeth ought to ſtand directly oppoſite to each other, the better to catch the Bowles of the Flax as it is Rippling.

When you Ripple your Flax, ſpread a winnow Sheet on the Floor under the Rippling-Bench, to receive the Bowles, and as you open the Sheaves, take out each handful by it ſelf, of which the Sheaf was made, for each handful will cling together and ſeparate from the reſt of the Sheaf, when well made up, and no more than one handful can be Rippled at once: Two Perſons may work at the ſame Rippling-Comb, each Perſon ſtriking his handful alternately, and two others are to attend them, whoſe care is to open the Sheaves, and to hand to his Rippler the handfuls of Flax, of which the Sheaf was compoſed, and when the Rippler Ripples that handful, the Perſon who attends him receives that back, and ſupplies him with another handful; the Rippled Flax is to be laid by it ſelf, obſerving to keep the handfuls together till you have a ſufficient quantity wherewith to make a Sheaf, then the Perſon who attends the Rippler binds it in the middle into a Sheaf of about three Quarters of a yard in Circumference; when all the Flax is thus Rippled and bound in Sheaves, the next care is to Rate or Water it.

When the Bowles or Bells are thus Rippled from the Flax, you muſt immediately Thraſh them well with Flails, as you do the Ears of Corn; or if your quantity be very great, and you have the conveniency of a large Barn, you may in leſs time and with leſs expence do it with Horſes in the following manner, *viz.* lay the Bowles in a large ring, and tying 5 or 6 Horſes together, the Head of one to the Tail of another, drive them round upon the Bowles, and with Brooms or Shovels keep under the Horſes Feet the Bowles which will be apt to ſcatter by their treading it, and thus proceed till that parcel be ſufficiently broken, and by this means you will Thraſh a great deal in a Day, becauſe the Bowles will be very dry for having been Stacked all the Winter.

When you have thus Thraſh'd your Bowles, you are then to ſeparate the Seed from the Thraſh and Bowles with Sieves, firſt making uſe of thoſe of a ſmall maſh or little holes, to ſever the duſt and ſeeds of Weeds from the Flax-Seed, and when that is done, to make uſe of Sieves of a larger maſh, which will let the Flax-Seed thorough and none of the Bowles or Bells; for this purpoſe the *Dutch* make uſe of Sieves made with a large Parchment bottom, punch'd as full of ſmall round holes as cloſe and contiguous as can be, ſo as not to ſuffer the Flax-Seed it ſelf to paſs thorough, but only the duſt and ſeed of the Weeds, this done they have another Parchment Sieve, punch'd with oblong holes, thorough which they ſift the Flax-Seed, and ſever it from the pieces of Bowles and Pods, which till then the Seed was mixed with, and can't paſs thorough thoſe oblong holes; ſome of thoſe ſort of Sieves are at the Linnen-board.

For the more eaſy cleanſing the Seed, brought to us from the *Baltick*, from the ſeeds of Weeds, which are generally mixed with it, the Truſtees of the Linnen-Manufacture have ſet up at their Ware-houſe in *Dublin* an Engine which does the Work well and with great expedition: This Engine is made round, in the form of a Cylinder or long Barrel, about 7 Foot long and 18 Inches Diameter, and covered with Velum or Parchment, punch'd full of little round Holes, and ſupported with a Frame of round pieces of Wood, this Frame turns upon two Iron Gudgeons, ſo plac'd that the upper end of the Cylinder lies 5 or 6 Inches higher than the other, when the Cylinder is turn'd about by the help of a handle at the upper end, all the Seed which falls into it from a Hopper, is rolled frequently about, and by the means of ſome Barrs within ſide, takes ſome time before it comes out at the end, and in the paſſage, the Seed of Weeds, which are ſmall, drop thorough the little round holes of the Velum into a Trough, and the Flax-Seed which is too large to paſs thorough thoſe holes, is diſcharged at the end of the Cylinder by it ſelf; and if any of the Seeds of Weeds ſhould happen to paſs with the Flax-Seed, the repeating the Operation will entirely ſeparate them: By this contrivance, two Women, one for turning the Cylinder, and the other for ſupplying it with the foul Seed, will cleanſe more Seed in a day than 20 Women can do with Sieves.

Great care ought to be taken to cleanſe the Flax-Seed from the Seed of Weeds, for if they are ſown with the Flax-Seed, they will occaſion a great deale of trouble in weeding, and in the weeding time can hardly be diſtinguiſh'd from the Flax, and if ſuffer'd to grow with the Flax, will by ſtarving it and twining about the Flax greatly injure it.

The method above deſcribed is the ſureſt and leaſt expenſive way of having Flax-Seed in good order, free from all danger of heating, or loſing Colour, and there is hardly a Seed thus ſaved but what will grow. And accordingly the Flax which the *Dutch* and *Flemings* reſerve for their own ſowing, they never Ripple the ſame Seaſon they pull it, but Houſe or Stack it till the Spring: but in regard that the People in this Country have not a Stock of Flax beforehand, and have occaſion for all, if not the greateſt part of their Flax to work up in Winter, and therefore cannot wait till the Spring following to Ripple and water their Flax; The Directions in this Caſe for ſaving the Seed are as follows.

Ripple no more of your Flax the firſt Seaſon, than what you will have occaſion for the Winter following. When your Flax has been pull'd in handfuls, and laid on the Ground to Weather for 5 or 6 Days, and then bound in Sheaves, and placed on their Buts leaning on one another till they are ſufficiently dry as is above mention'd, then you are to carry the Flax to your Barn and Ripple it, and bind the Rippled Flax into Sheaves of about three quarters of a yard in Circumference, thus prepared it is fit for Watering.

But for the Bowles, Bells or Pods which you have Rippled from the Flax, you are to order them thus, after ſeparating the Leaves and Rubbiſh from them, lay them out very thin on a Winnow-Cloth to dry in the open Air, and often turn them in a Day, but if your quantity be too large for that, or that the Weather does not anſwer, lay them very thin on a dry Malt-Houſe floor, or boarded floors, and turn them twice a Day for the firſt Week, giving them all the Air that poſſibly you can, and as they grow dry lay them thicker, and turn them once a Day for the next

Fortnight, and twice a Week after till the Spring, when they are to be thraſh'd and clean'd for uſe.

In order to keep the Bowles which you Ripple off the firſt Seaſon, from heating, it wou'd be of uſe to lay up in ſome dry place the Bun or the Chaff or Bowles of your laſt Years Flax, and mix them with the green Bowles of the next Years growth, for being themſelves very dry, they will be a great means of drying the green Bowles by ſucking in their Moiſture, and keep them from heating.

'Tis the practice in *Germany*, in order to prevent their Seed from degenerating, to give it a Years reſt once in three or four Years, keeping it with the Chaff duly turn'd, till the Spring come twelve Month after it is pull'd, and 'tis found that Flax-Seed thus kept will yield a better Crop than otherwiſe it wou'd.

SECT. VI.

Of Watering or Rating of Flax.

YOUR Flax being Rippled and bound in Sheaves as above mentioned, your next buſineſs is to Water or Rate it.

The intent of Watering of Flax is to make the Pith or Pulp of the Flax, commonly call'd the Bun, to ſeparate from the Bark or Skin commonly call'd the Harl, and this is effected by putting the Flax into Water, and keeping it there ſeveral Days, which will raiſe a Fermentation in the Flax, and by rotting the Bun, will make it part eaſily from the Harl, and at the ſame time purge and ſoften the Flax.

The beſt Waters for rating of Flax, are ſtanding Waters, which have been long expoſed to the Sun and Weather, and are become ſoft, warm, and bear Soap, ſuch as moſt of the Loughs in this Kingdom are; if you have not the conveniency of ſuch Loughs, then you ought to make rating Ponds, which ought to be ſo ſcituated, that you may convey at pleaſure Water from ſome adjacent ſtream into them in the dryeſt Summer, and take care not to make your Ponds in foul mouldring Grounds, Gravel or ſtiff Clay are the beſt for that purpoſe.

Theſe Ponds may be made from 5 to 8 Foot deep and wide, and as long as the quantity of your Flax will require, and ought to be fill'd with Water ſo early in the Year, as that it may be ſufficiently ſoften'd by the Weather, before you put your Flax into it.

All Waters that are hard and cold are improper for rating of Flax, becauſe they not only check the Fermentation, which is requiſite, but make the Flax hard and wiry; for that reaſon Rivers and running Streams are not ſo good, and eſpecially ſuch as have ſtrong ſwift Currents, in regard they fret and tear the Harl from the Bun. Bog-Water, though it be ſoft, yet is very unfit for Flax, becauſe it generally ſtains, and diſcolours the Flax, in ſuch a manner, that ſuch Stains can ſeldom be got out by the beſt Bleaching.

The Seaſon for watering your Flax varies according to the time you ripple it. If you ripple it the ſame Seaſon it is pulled, then immediately after rippling carry it to the Water; if you keep your Flax in Stack all the Winter, then the time for watering that Flax will be about the middle of *April*, and not ſooner, or any time in the Summer after.

When you lay your Flax in the Water, lay the firſt Range of Sheaves the long way of the Pond, and the next Range a-croſs the firſt, and ſo proceed alternately, till the Flax be piled ſo high, that when it is ſunk, it will be about 14 Inches under the Surface of the Water; then muſt the Top of the Flax be cover'd with Fern or other Stuff, 2 or 3 Inches thick, and over the Fern a weight of Stones muſt be laid ſufficient to keep the Flax and all under Water; for as ſoon as the Flax has been laid 24 Hours in the Water, it will ſo ſtrongly ferment, as to require all Hands at work to keep it down, to the end the upper Range may be equally watered with the lower.

When the Flax has been three or four Days in the Water, then thruſt your Arm as far into the Water as you can, and draw out ſome of the Straws of the Flax by the Buts, and bend ſome of them; if they break readily, inſtead of bending, and the Harl quits the Bun without difficulty, the Flax is ſufficiently rated, but if the Bun does not readily break, or the Harl quit it, then you muſt repeat this Experiment twice a Day, until you have found thereby, that the Flax is ſufficiently water'd; yet when the Fermentation gives over, ſo that the Flax ſinks of it ſelf, it is a Sign that it is ſufficiently watered.

As ſoon as the Flax is diſcover'd to be ſufficiently rated, it muſt be haſten'd out of the Water, to be graſſed as ſpeedy as poſſible, taking it up Sheaf by Sheaf, and giving each of them a gentle ſhake, or rinſing in the Water, to cleanſe it from the Slime and Filth contracted in the Water, as it lay there purging and fermenting.

It is not poſſible to aſcertain in what time Flax will be ſufficiently rated, becauſe this depends ſo much upon the Weather, the Quality of the Water, and the Nature of the Flax, that the time ſpent in rating will vaſtly differ: For if the Weather be hot, or hotter than ordinary, and the Water warm and ſoft, and if the Flax be green and coarſe, the Fermentation will be the quicker and ſtronger, and conſequently the rating will be ſooner over; but if the Weather be cold and rainy, the Water cold and hard, and if the Flax be fine, or long kept, the Fermentation will be the ſlower, and the time neceſſary for watering will be the longer. So that the Farmer muſt have regard to all theſe Circumſtances, and carefully watch the Time when his Flax is ſufficiently rated, for over-watering will rot and ſpoil the Flax, but under-watering may be helpt by giving it more graſſing afterwards: This is a certain Rule in rating of Flax, to rate the coarſe by it ſelf, and the fine apart by it ſelf, becauſe the fine takes ſeveral Days longer to rate than the coarſe.

During the time of rating of your Flax, you ought not to let in any more Recruits of Water into your Ponds, than what is abſolutely neceſſary to keep the Stones, laid over the Flax, continually cover'd, for bringing in a Quantity of freſh cool Water, will check the Fermentation, which ought to be avoided.

SECT. VII.

Of Graſſing of Flax.

WHEN your Flax is ſufficiently rated, taken out of the Water and cleanſed, then muſt it be graſs'd in the following manner.

Firſt the Bandage muſt be taken off, Sheaf by Sheaf, and the Flax ſpread in Rows as even at the Roots, and as thin as is poſſible, on a new mowed Medow, or on Ground where the Graſs is ſhort, leaving at the But-end of the Flax as much Room uncover'd as will receive the Flax, when turn'd over on the Buts; by which turning the Buts will remain in the Place they were on before, but the Heads will be on the oppoſite Side. Then proceed to make a ſecond Row with the ſame Caution, only with this Difference, that there is no occaſion for leaving a greater Diſtance between the Heads of the firſt Row, and the Roots of the ſecond, than an Inch or thereabouts, that they may not entangle with each other, for the ſpace of Ground which contained the firſt Row, when turn'd will contain the ſecond; and proceed after this manner to ſpread all the Flax.

When the Flax has thus lain four or five Days, and has acquired the deſired Colour, which is either white or yellow, then with the help of a long Wand, held in both Hands, and thruſt under ſo much of the Flax as you then deſign to turn, you are to turn the Flax over upon the Roots, the Heads the other way, and the Roots ſtill kept as even as poſſible, and ſo proceed Row by Row till the whole Field be turn'd; let it thus continue a Day or two to bleach and ſtiffen, or longer, if the Weather be not favourable. When the Flax is thus ſufficiently ſtiffen'd, then the firſt dry Day take it from off the Graſs, and gather as much of the Flax as will make a Sheaf, and without tying it, place it on the Buts, giving the upper end a little twiſt to make it cling together, and opening it very wide at the Bottom, as hollow as a Bird-Cage, that the Sun, Air and Wind may ſufficiently dry it; and when it is very dry, and out of danger of heating, then carry it home in a dry Day, and either houſe or ſtack it, taking care if you ſtack it, to thatch it extraordinary well; for Flax is much more liable to be ſpoiled, if it receives Wet after it is ſufficiently watered, graſs'd and dryed.

If the Weather prove wet, Flax will not ſuffer at all by ſtanding in the Field, but if it prove windy and ſtormy, it will be apt to diſorder the Flax, and mingle the Buts and Ends together, and thereby create a vaſt deal of Trouble to ſet all right again; for the Buts muſt be always kept together, when ſwingled, heckled and ſpun. The only Remedy to avoid this Inconveniency, is either to water your Flax in *April* or *May*, when we are not troubled with Winds, or to ſow early in *April*, that the Flax may be earlier ripe, pulled, rated, and graſſed, before thoſe Storms happen, which are ſo frequent about *Michaelmas*.

If your Flax has not been ſufficiently watered, you may help that by letting it lye longer on the Graſs, till you find the Bun will break readily, and the Harl ſeparate well from it; but if on the other hand your Flax has been over-rated in the Water, then a Day or two after it is graſs'd, and that the Flax is grown ſtiff, if the Bun breaks readily, ſuch Flax ſhould be immediately taken from off the Graſs, and ſtooked on the Buts in the Field, till it be ſufficiently dry, and then carried directly to the Barn, and not ſtacked; Flax over-watered ſhould be the firſt that is ſwingled and heckled.

If your Flax in graſſing ſinks to the Roots of long Graſs, or be ſhaded by it, it will be hindered thereby from drying, and will ſoon rot, and therefore ought to be raiſed as ſoon as poſſible, and placed upon the Buts, and if it be caſt down by Winds, it muſt be ſet up again immediately.

The *Dutch* never ſuffer their Flax to lye more than two or three Days on the Graſs in order to ſtiffen it. unleſs they perceive it to be under-rated, and when it is ſtiffen'd, they immediately raiſe it on the Buts, to give it all the Benefit it can have from the Wind and Air, in order to give their Flax a beautiful Colour, which they conceive, it cannot have, if it be ſuffer'd to lye long upon the Graſs, which would grow thorough it, and ſhade it, and prevent the Air from paſſing thorough it, as it would otherwiſe do when placed on the Buts; and if Rain or Dew falls on it in that Poſition, it will leſs hinder the Flax from drying, than it would do if the Flax lay flat on the Ground.

SECT. VIII.

Of Breaking, and Swingling or Scutching of Flax.

BEfore you go about to break your Flax. ſee that your Flax be dry enough. ſo that the Bun will eaſily break, and ſeparate from the Harl, if you do not find it dry enough, then dry it either on a Kiln, or over a fire, taking care to prevent its taking fire. The *Dutch* in ſuch Caſe make uſe of a large Oven, which they make ſo warm, as that they can put their Flax with Safety therein, having firſt untied the Shaves and placed them on the Buts; then they ſtop the Mouth of the Oven as cloſe as poſſible, and there let the Flax ſtand for the ſpace of 12 Hours to ſweat; this done they remove it thence, and bind it into large Sheaves, and cover theſe Sheaves with Cloths as cloſe as they can, and there let them lye for ſix Hours to ſweat, When your Flax is ſufficiently dry, then you are to apply your ſelf to the breaking of it, which is done with Breakes made with three Bars under and two above, the Maſh of *Dutch* Breakes are made ſhallower than ours, and the Rollers of theirs are ſquare, and not rounded as ours are, which keeps their Work tighter and ſteadier than ours do, their Breaks are ſomewhat ſhorter than ours, which has a good effect on theit Flax, becauſe they can manage them more nimbly, and whip their Flax, and turn it under the Break more readily, ſo as to break and ſqueeze the Bun to pieces, and the Maſh of their Breaks being ſo ſhallow, the Harl runs no risk of breaking or tewing.

The dryer your Flax is made the eaſier will the Bun break, and the Harl ſeparate from it, and not run ſo much to Tow, or Backings as otherwiſe it wou'd.

Breaking of Flax being the proper Buſineſs of the Swingler, he ought to do it at the ſame time he ſwingles. Swingling of Flax, or ſcutching of it, as others call it, is to ſever the Bun or Pith from the Harl or Skin, after that the Flax has been ſufficiently broken by the Breakes, and this is done by the means of Scutching-Handles, which are about *14* or *16* Inches long, thoſe uſed by the *Dutch* are about *9* Inches broad, thicker in the Middle, and fall off thinner towards the Edges; with theſe Scutching Handles the Swingler is to clear the Flax from all the Bun which ſticks to it, and which was ſufficiently bruiſed by the Break before, taking care in ſtriking off the Bun, not to break or tear off the Harl: An expert Man can ſwingle Flax, more to the Profit of his Employer, by two Pound in a Stone, than another, who is not well ſkill'd in it, and the ſame may be ſaid of Heckling.

The uſual Price for breaking and ſcutching of Flax to be fit for the Market, is a Penny or five Farthings for a Pound Weight, or about 18 *d.* a Stone.

Thus you receive all the Inſtructions which are neceſſary for ſowing and ſaving of Flax-Seed, and preparing of Flax for the Heckle and Market, and which require but little Skil or Expence to put them in Execution,

The Inſtructions for Heckling, Spinning, Weaving, and Bleaching, will be communicated in a proper time, as alſo the Inſtructions for the Management of Hemp.

As the *Dublin Society for Improving Husbandry, Manufactures, and other uſeful Arts in this Kingdom*, intend to communicate to the Publick their Obſervations and Inſtructions in all the principal Parts of Husbandry, they think they could not begin better than by recommending the raiſing of Flax and Flax-Seed, for the better extending and carrying on the Linnen-Manufacture in this Kingdom, which is of the greateſt Importance to us.

Their Obſervations and Inſtructions for Improving other Parts of Husbandry will in like manner be Publiſhed in due time for the Uſe of the Publick.

6 DE.58

FINIS.

4